

**Mars Program Update**  
**From “Follow the Water” to “Seeking Signs of Life”**  
***Participant Bios***  
**January 13, 2011**

**Marcello Coradini** is currently the European Space Agency (ESA) Programs Coordinator at the Jet Propulsion Laboratory in Pasadena, CA. His academic career started in Italy during the golden age of planetary exploration in the 1970s and contributed to the establishment of this discipline both in Italy and Europe, together with a small group of enthusiastic colleagues. Dr. Coradini joined the ESA on April 1987 with the specific task to initiate a program of exploration of the solar system. As Coordinator of the Solar System Missions, he has been in charge of planning and overseeing the solar system missions implementation at ESA, a program second only to that of NASA's. More recently, he led the ESA Exploration Program and contributed to establishing a collaboration with NASA that will extend for at least two decades. In 1991, the International Astronomical Union has named asteroid 4598 after him for his contributions to asteroidal science and exploration. Dr. Coradini is a Fellow of the Royal Astronomical Society, a member of the European Geophysical Union, former Editorial Director of the scientific journal 'Planetary and Space Science', a member of the Italian Physical Society and Academician of the International Academy of Astronautics. Dr. Coradini is also a Professor of space system design at the University of Trento and visiting professor at the University of Genova. He is also author and/or co-author of about 130 scientific and engineering papers, and 4 books.

**Jennifer Eigenbrode** is a Goddard Space Flight Center biogeochemist and geologist with expertise in organic and isotope geochemistry and interests in astrobiology. She specializes in the use of gas chromatography-mass spectrometry (GCMS) in the analysis of lipids and other hydrocarbons in rocks, ice, and biological samples. Dr. Eigenbrode studied at James Madison University (B.S. 1994), US Geological Survey (1996), Indiana University (M.S., 1999), Penn State University (Ph.D., 2004) and the Geophysical Laboratory, Carnegie Institution of Washington (postdoctoral fellowship, 2004-2006), where she worked on a variety of interdisciplinary studies including paleoclimate records, Precambrian microbial ecology, and organic biosignatures in Mars analogs. Dr. Eigenbrode had an early start in astrobiology and was presented the first Gerald A. Soffen Award for student research in 2001 by the NASA Astrobiology Institute for her work on late Archean organic geochemistry. In 2007, she joined the Atmospheric Experiments Laboratory (code 699) at NASA GSFC to work on the Science Analysis at Mars (SAM) instrument package to be flown on the Mars Science Laboratory (MSL) in 2009. Her current research platform includes investigations of biosignatures in planetary and lunar analogs, evolution of Earth's early biosphere, and isotopic analysis of organics in sample return materials.

**John A. Grant III** joined the Smithsonian in the fall of 2000 as a Geologist at the Center for Earth and Planetary Studies at the National Air and Space Museum. He has been a member of the Science Team for the Mars Exploration Rovers since 2002 and is one of six Science Operations Working Group Chairs responsible for leading day-to-day science planning of the rovers which have been operating for more than five years on Mars. Dr. Grant also co-chaired the science community process for selecting the landing sites for the Spirit and Opportunity Rovers and is currently co-leading the process for selecting the landing site for the 2011 Mars Science Laboratory rover. He has been interested in Mars ever since reading Ray Bradbury's *The Martian Chronicles* as a child. Dr. Grant attended the State University of New York College at Plattsburgh and received his bachelor's degree, magna cum laude, in geology in 1982 and went on to earn a master's and doctorate in geology at the University of Rhode Island (1986) and Brown University (1990), respectively. His dissertation focused on the degradation of meteorite impact craters on Earth and Mars and remains interested in

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understanding processes responsible for shaping planetary landscapes. After a two-year position at NASA Headquarters, where he served as Program Scientist for the Mars Global Surveyor and now postponed Sample Return missions, Dr. Grant then accepted his current position at the Smithsonian Institution. Since 2001, he has also served as a Co-Investigator on the High Resolution Camera (HiRISE), which is to be flown on the 2005 Mars Reconnaissance Orbiter, and is currently developing a ground-penetrating radar for possible future deployment on a Mars rover.

**Doug McCuistion** leads the Mars Exploration Program. Mr. McCuistion has held positions in Earth and Space science at NASA Headquarters, the Goddard Space Flight Center and US Navy. At Headquarters he was the Director of Flight Programs for NASA's Earth Science Enterprise. At Goddard, he worked on the Tracking and Data Relay Satellite (TDRS), Geosynchronous Operations Environmental Satellite (GOES), Landsat, NEXUS (a James Webb Space Telescope precursor), and as a Deputy Director, in an engineering division. Prior to his career in space, Mr. McCuistion was commissioned as an Ensign from Aviation Officer Candidate School in Pensacola and spent 12 years as an F-14 Tomcat RIO, and also worked the Navy's GEOSAT Follow-On mission. He retired at the rank of Commander in 1998.

Doug has been recognized with the rank of Meritorious Senior Executive, and awarded two NASA Exceptional Achievement Medals; two Navy Commendation Medals; and various NASA, Navy, and other-Agency individual and group achievement awards.

**Michael A. Meyer** is a Senior Scientist in the Planetary Science Division in NASA's Science Mission Directorate at NASA Headquarters. He is Lead Scientist for the Mars Exploration Program, responsible for the science content of current and future Mars missions, and Program Scientist for the Mars Science Laboratory mission (to be launched in 2011) and for the 2018 NASA/ESA Mars mission. Dr. Meyer was Senior Scientist for Astrobiology, Program Scientist for the 2001 Mars Odyssey mission and Discipline Scientist for Astrobiology when the Astrobiology Program was established in 1997. He also managed the Exobiology Program and, from 1994 to 1997, served as Planetary Protection Officer for NASA. Dr. Meyer originally was detailed to NASA from the Desert Research Institute, University of Nevada, where he was an assistant research professor from 1989-97. From 1985 to 1989, he served as associate director and associate in research for the Polar Desert Research Center, Department of Biological Science, and Florida State University. In 1982, he was a visiting research scientist at the Culture Centre for Algae and Protozoa in Cambridge, England. Dr. Meyer's research interest is in microorganisms living in extreme environments, particularly the physical factors controlling microbial growth and survival. He has conducted field research in the Gobi Desert, Negev Desert, Siberia, and the Canadian Arctic. He is also a veteran of six research expeditions to Antarctica. His experience includes two summers working as a treasure salvager off the coasts of Florida and North Carolina. Dr. Meyer earned his Ph.D. and M.S. in oceanography from Texas A&M University (1985, 1981) and his B.S. in biology from Rensselaer Polytechnic Institute (1974).

**John Mustard**, received his B.S. with Honors in 1983 from U. British Columbia and his Ph.D in 1990 from Brown University. Following postdoctoral research in the Department, Dr. Mustard was appointed W. M. Keck assistant professor (research) in 1991 after a nationwide search. His interests in the applications of remote

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sensing have been integral to the Department's interdisciplinary work with Environmental Sciences, the Environmental Change Initiative and the Marine Biological Laboratory (MBL) joint program. The central themes that run through his research are the processes that modify solid surfaces and the spatial and temporal scales that control environmental processes on the Earth. Because surfaces lie at the interface between the solid interior of a planet (from the shallow subsurface to the deep interior) and the fluid exterior (atmosphere, hydrosphere, etc.), their composition and morphology record the interesting interplay between interior and exterior processes.

**Steve Squyres** is Goldwin Smith Professor of Astronomy at Cornell University. Dr. Squyres earned a Ph.D. in planetary science from Cornell (1981). His research focuses on the robotic exploration of planetary surfaces, the history of water on Mars, the geophysics and tectonics of icy satellites, the tectonics of Venus, and planetary gamma-ray and x-ray spectroscopy. Research for which he is best known includes the study of the history and distribution of water on Mars and of the possible existence and habitability of a liquid water ocean on Europa. Dr. Squyres has participated in a number of planetary exploration missions. From 1978 to 1981 he was an associate of the *Voyager* imaging science team, participating in analysis of imaging data from the spacecraft's encounters with Jupiter and Saturn. He was a radar investigator on the *Magellan* mission to Venus, a member of the *Mars Observer* gamma-ray spectrometer flight investigation team, and a Co-Investigator on the Russian Mars '96 mission. Dr. Squyres is currently scientific Principal Investigator for the Mars Exploration Rover Project. He is also a Co-Investigator on the *Mars Express* mission and on the *Mars Reconnaissance Orbiter's* High Resolution Imaging Science Experiment. He is a member of the Gamma-Ray Spectrometer Flight Investigation Team for the *Mars Odyssey* mission and the imaging team for the *Cassini* mission to Saturn. He is also working on instruments for NASA's Mars Science Laboratory to be launched in 2011. Dr. Squyres co-chairs the Space Studies Board 2009-2011 Decadal Survey of Planetary Exploration.

**Mary Voytek** is in charge of NASA's Astrobiology Program in NASA's Planetary Science Division in the Science Mission Directorate at NASA Headquarters. Dr. Voytek also serves as the Deputy Program Scientist for the Mars Science Laboratory mission (to be launched in November 2011). She has degrees in Biochemistry from Johns Hopkins University, Biological Oceanography from the University of Rhode Island and Biology and Ocean Sciences from the University of California Santa Cruz. Before coming to NASA, she led the Microbiology and Molecular Ecology team at the U.S. Geological Survey in Reston, VA. Dr. Voytek's primary research interests are microbial ecology and biogeochemistry and include understanding the environmental controls on microbial transformations of nutrients, xenobiotics, and metals in freshwater and marine systems. Her research has taken her to several extreme environments including Antarctica, the Arctic, hypersaline lakes, deep-sea hydrothermal vents, and terrestrial deep- subsurface sites. She has conducted deep-biosphere studies at the Chesapeake Bay Impact Structure. The most recent results of this research project were published in the June 27, 2008, issue of Science. While at the USGS, she served on the NASA Advisory Council's Planetary Protection Subcommittee and also on several NASA and COSPAR advisory groups on special topics. She also served as a technical advisor to the US State Department mission to Pakistan, providing scientific advice on developing safe drinking water practices while protecting water resources. She has been active in the leadership of the AGU Biogeosciences Section for the last 10 years and was recently

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elected to the AGU Board of Directors.